Figure 1.

SEQ ID NO:1

GCTCCAAAGAGACATTTTGGGGTGGCAAAATAGTCTACAGGATTCTATGGCATA
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CCAGGATTTATAAGAACTTTTTTGTTGGGAAAATAAATGTAGTCAAACATAAAAAG
ACAACTGCTAATAACAAACAATAGACATGTCAAGATAATGACCTTAGTGCCTTTCT
ATGTGTGGAAAGACTCAAGAATCTGGGGTCATTGAACTTTTTCCTTAGATATGCA
TCTTAATATCCTGGGGTCAGTATAATCCAAATGCTTCCTGTTTTTCTCCATCCTAA
AGTCCCCTCCGGGTGCACTGATGGGTTCCCCTCCAGTGGGCAACTGCAGTGGC
AATTGGCTTGATCTCTGTAGAACTGGAATGGTGGGCAACATTCTTTTCTTTACAG
TATCCTGAGTCTGGGAGGGGCTGTGTGGGCCAGAGCCTGNATGCAGGAGGAG
GAGGGAGTCTGATCGCTTAGTCAGCTTCTCGCTTAACCTTGAGCTGGTGGTTAT
AAGCTGGGCCCCAGGCGCCCGAGGCCAGACTCACCTCATCAGGCCCTGCTGCA
GTGGGAGCAGGGAGAGTAGCAGTGGTAGGGGCAGCATG

N = C or T at polymorphic site

SEQ ID NO:2

Forward primer:

GCTCCAAAGAGACATTTTGGGGTGGC

SEQ ID NO:3

Reverse primer:

CATGCTGCCCCTACCACTGCTACTCT

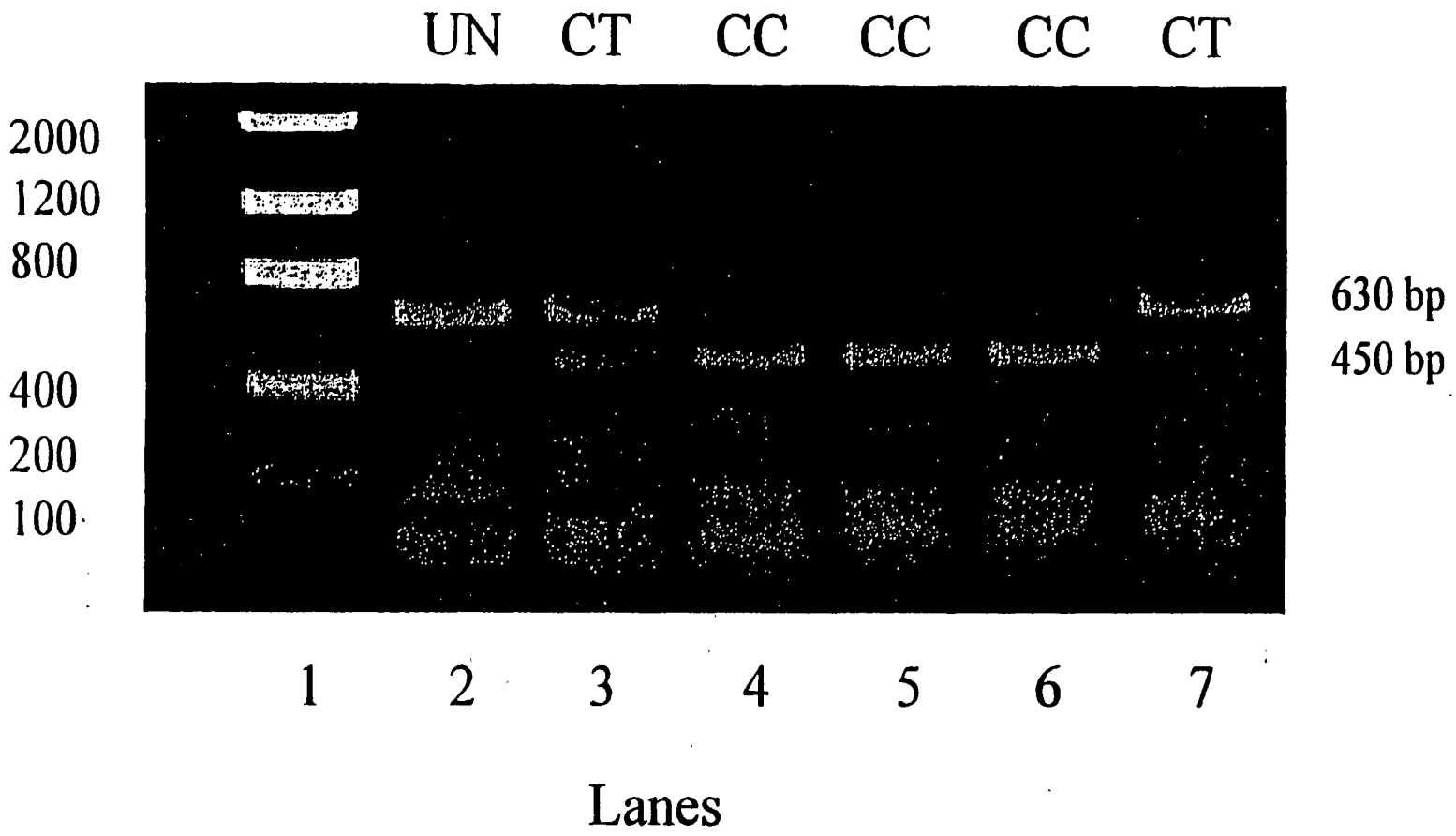
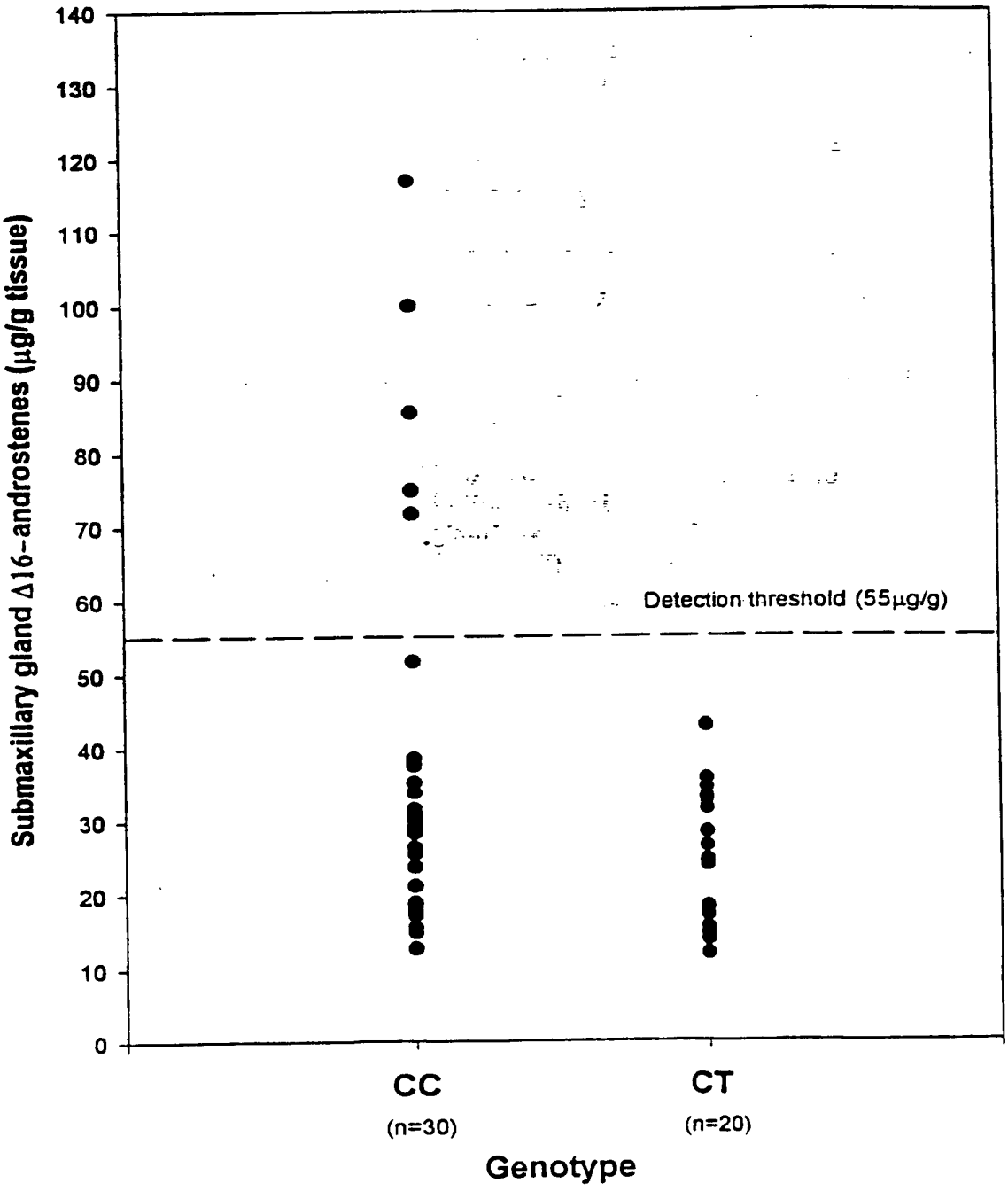


Figure 2. SphI restriction digest of porcine CYP11a1 PCR fragment

PCT/US00/13168

Figure 3. Comparison of submaxillary salivary gland Δ16-androstenes in boars possessing a CYP11a1 single nucleotide polymorphism.



	Genotype		
	CC	CT	P value
Rate of gain (kg BW/d)	0.76 ± .01	0.72 ± .01	.05
Carcass length (cm)	85.17 ± .38	82.96 ± .47	.001
Submaxillary salivary gland (SMG) wt (g)	92.1 ± 3.1	71.5 ± 4.9	.0001
Δ16-androstenes in SMG (μg/g)	38.7 ± 4.1	23.9 ± 5.0	.05
Relative SMG wt (g/kg BW)	0.72 ± .023	0.58 ± .027	.001
Bulbourethral gland length (mm)	128.8 ± 2.4	117.7 ± 2.9	.01
Relative bulbourethral gland wt (g/kg BW)	93.8 ± 4.0	73.5 ± 4.9	.01
Testis wt (g)	628.6 ± 27.1	530.2 ± 25.4	.05
Relative testis wt (g/kg BW)	4.92 ± .20	4.33 ± .24	.10
Serum testosterone at slaughter (ng/ml)	2.04 ± .28	1.59 ± .35	.32

Figure 4. Growth, carcass, and reproductive traits of pigs with CC or CT CYP11a1 polymorphism.

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   1 gcagatgtcc ctggtgattc ctgaaacagg ccctctgttt aaattcttca gcagttagag
  61 ggaaggtcaa tttttcccaa ggcttttggg ctttgattgt tttcattttt aaattatctg
 121 cattctaaag agatattttg ggtggcagat tttgctctcc tacaggactt tgtctaggag
 181 acggctctca ggccagctcc gacgactgtt ccaaagaagt aagggaaagc tagggtttat
 241 atcaatcttt ttttttgctg ggagaagggg gatgaacatg tagtcaaaca taaaaagatc
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 421 gctcctctgt ccatgggatt tttctaggca agaatactgg agtgggttgc catttccttc
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 541 tttaccgact gagccaccag ggaagttatg tgtgcaagaa tccggggtca tggaaatttt
 601 cccttagata tacatcgtat ctagggacca gtacaatgca aatgcttcct gtttttcttc
 661 atcctgaagt ctcctcaggg tgcattgagg gagggagtcc cctcaggtgg gtgaccacag
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 901 tcacctgctg cagtacgagc agagacagca gcagctgtgg gggcagcatg ctagcaaggg
 961 ggcttccccc ccgttcagcc ctggtcaaag cctgcccacc catcctgagc tcagtggggg
1021 agggctgggg ccaccacagg gtgggcactg gagagggagc tggcatctcc acaaagaccc
1081 ctcgccccta cagtgagatc ccctcccctg gtgacaatgg ctggcttaac ctctaccatt
1141 tctggaggga gaagggctca cagagaatcc actttcgcca catcgagaac ttccagaagt
1201 atggccccat ttacaggtaa gcctggcagg aggattgggg ctggcgggat agggaagcct
1261 gtggtggccc cctccctgaa aggtctgccc tccccttcca ggctctggtt cacctctgac
1321 tttatttctt cctgcctggc ggtggcagga gtagagttaa tgcttcccag acagtgggtt
1381 cacttcccag ccctgaggcc tcaacagtcc ccgggctcta cacccttaga aactttgggg
1441 aggtggggag gcccaagaaa ataagccccg g
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FIGURE 5

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   1 ctttttcgg ttgtaccttt gtctctgtac agatattttg taatatatta aaaacaaaac
  61 ctactgagct cctcgccttg agcccaggat tcagggataa gagcgaggtc gccccggccg
 121 tgcgccgccc tgctcccatg ctctccaggg ctgcacccat agcgggcagc tttcaggcat
 181 gccgctgtgc cggagggatc ccagccctcg cgggggtcca ctacccattg cccagctcct
 241 cgggagctcg gcctttcgac caggtgccgg gtgaatggag agcgggttgg ctcaacctgt
 301 accacttctg gaaggaggga ggcttccaca acgtgcacaa catcatggcc agcaagttcc
 361 agcgctttgg gcccatctac agggagaagt tgggtgtcta cgagagcgtg aatatcatca
 421 gcccccgcga tgcggccacg ctcttcaagt cagaggggat gctgcccgag cgcttcagcg
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 541 caggggaggc ctggcgctcg gaccgcctga ccctgaacaa ggaggtgctg tcgccgcagg
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 661 gggcgcaggt ccagcagagc ggccgggagc gctggacggc cgacttcagc cacgagctct
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 961 acgtttaccg ggacatccgg ctgcaacgca agagcaccga ggagcacacg ggcatcctct
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1081 tgatggcggg cggcgtggac acgacttcca tgactctgca atgggccatg ctggagctgg
1141 cacgatcccc gggcatccag gagcggctgc gggcagaggt gctggcagcc aagcaggagg
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1381 gacgagaccc tgaggtcttc cccaagccgg agcagttcaa ccctgagcgc tggctggtga
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1501 gtcgcatcgc cgagctggag atgcagctct tcctcatgca catcctggag aactttaaga
1561 tcgaaaccaa gcgggcggtg gaagttggga ccaagttcga cctcattctt gtccctgaaa
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1681 ttggtcccag cttggggaca cctccatcag ctcagcgcat tcagccttgg ctccagccct
1741 tcttacgcca tgggggagat ggctgccccc ttcccatttt cttcgcctct gatttgctct
1801 gtaatttctg caccaaaagc
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FIGURE 6